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2006 MeSH

## MeSH Descriptor Data

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MeSH Heading	Diabetes Mellitus, Type 2
Tree Number	C18.452.394.750.149
Tree Number	C19.246.300
Scope Note	A subclass of <u>DIABETES MELLITUS</u> that is not INSULIN-responsive or dependent ( <u>NIDDM</u> ). It is characterized initially by <u>INSULIN RESISTANCE</u> and <u>HYPERINSULINEMIA</u> ; and eventually by <u>GLUCOSE INTOLERANCE</u> ; <u>HYPERGLYCEMIA</u> ; and overt diabetes. Type II diabetes mellitus is no longer considered a disease exclusively found in adults. Patients seldom develop <u>KETOSIS</u> but often exhibit <u>OBESITY</u> .
Entry Term	Diabetes Mellitus, Adult-Onset
Entry Term	Diabetes Mellitus, Ketosis-Resistant
Entry Term	Diabetes Mellitus, Maturity-Onset
Entry Term	Diabetes Mellitus, Non-Insulin-Dependent
Entry Term	Diabetes Mellitus, Slow-Onset
Entry Term	Diabetes Mellitus, Stable
Entry Term	MODY
Entry Term	Maturity-Onset Diabetes Mellitus
Entry Term	NIDDM
Entry Term	Diabetes Mellitus, Non Insulin Dependent
Entry Term	Diabetes Mellitus, Noninsulin Dependent
Entry Term	Diabetes Mellitus, Type II
Entry Term	Type 2 Diabetes Mellitus
See Also	Metabolic Syndrome X
See Also	Rats, Inbred OLETF
Allowable Qualifiers	BL CF CI CL CN CO DH DI DT EC EH EM EN EP ET GE HI IM ME MI MO NU PA PC PP PS PX RA RH RI RT SU TH UR US VE VI
Previous Indexing	Diabetes Mellitus (1966-1983)
History Note	2005 (1984)
Unique ID	D003924

## MeSH Tree Structures

Nutritional and Metabolic Diseases [C18]Metabolic Diseases [C18.452]Glucose Metabolism Disorders [C18.452.394]Diabetes Mellitus [C18.452.394.750]Diabetes Mellitus, Experimental [C18.452.394.750.074]Diabetes Mellitus, Type 1 [C18.452.394.750.124] +

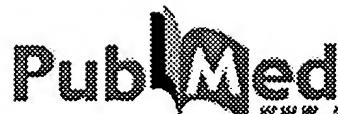
► Diabetes Mellitus, Type 2 [C18.452.394.750.149]

Diabetes Mellitus, Lipoatrophic [C18.452.394.750.149.500]Diabetes, Gestational [C18.452.394.750.448]Diabetic Ketoacidosis [C18.452.394.750.535]Prediabetic State [C18.452.394.750.774]Endocrine System Diseases [C19]Diabetes Mellitus [C19.246]Diabetes Complications [C19.246.099] +Diabetes, Gestational [C19.246.200]Diabetes Mellitus, Experimental [C19.246.240]Diabetes Mellitus, Type 1 [C19.246.267] +

► Diabetes Mellitus, Type 2 [C19.246.300]

Diabetes Mellitus, Lipoatrophic [C19.246.300.500]Prediabetic State [C19.246.774][Return to Entry Page](#)[Link to NLM Cataloging Classification](#)





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1: [Med Hypotheses](#). 2001 Feb;56(2):217-9.

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## The chlorophyll metabolite phytanic acid is a natural retinoid—potential for treatment and prevention of diabetes.

**McCarty ME.**

Pantox Laboratories, 4622 Santa Fe Street, San Diego, CA 92109, USA.

Synthetic ligands of the retinoid X receptor (RXR) have shown antidiabetic activity in mice, apparently owing to the fact that they stimulate the transcriptional activity of PPAR-gamma/RXR heterodimers, much like thiazolidinedione drugs. The chlorophyll metabolite phytanic acid has been shown to be a natural ligand for RXR, active in concentrations near its physiological levels. It is thus reasonable to suspect that phytanic acid may have utility for treatment and prevention of human type 2 diabetes. Phytanic acid may mimic or complement various effects of conjugated linoleic acids, which have been shown to activate PPAR-gamma/RXR and prevent rodent diabetes. Administration of hydrolyzed chlorophyll may represent the most cost-effective strategy for raising human tissue levels of phytanic acid.

PMID: 11425290 [PubMed - indexed for MEDLINE]

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These search terms have been highlighted: **phytanic acid**

# Phytanic acid

From Wikipedia, the free encyclopedia

Phytanic acid (or 3,7,11,15-tetramethyl hexadecanoic acid) is present in human diet or in animal tissues where it may be derived from chlorophyll in plant extracts. Phytanic acid derives from the corresponding alcohol, *phytol*, and is oxidized into pristanic acid.

It can also characterize a precise human pathology, Refsum's syndrome. This inherited neurological disorder is characterized by an accumulation of a normal metabolite of phytol (*phytanic acid*) in blood and tissues, and the disorder was later found to be related to deficiency in the  $\alpha$ -oxidation pathway in the liver. Freshwater sponges contain polymethyl branched fatty acids such as 4,8,12-trimethyltridecanoic, phytanic and pristanic acids, which indicates that these acids may have chemotaxonomical significance for both marine and freshwater sponges.

## External links

- Link page to external chemical sources.

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Categories: Carboxylic acids | Fatty acids | Organic compound stubs

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